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ABSTRACT

A pilot project will be established in the city of Amman, Jordan, and its outskirts. Guidelines include: (1) Project activities should be centered around functional literacy; (2) Efforts should be directed to persons engaged in productive activity; (3) The curriculum should be oriented towards the specific work in which the worker is engaged; (4) The project should be the shared responsibility of the Ministry of Education and the industrial establishments. A pre-project survey determined the number of industrial workers to be about 20,000. Two questionnaires were used in the survey. One was addressed to the employer and was designed to obtain data about the total number of employees, the nature of industrial activity, the number of illiterate workers, and the location of the company. The second questionnaire was directed at the illiterate worker and aimed, through an interviewer, to obtain personal information about the worker and to determine whether the literacy center should be located in the industrial establishment or near the residence of the worker. (CK)

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A FUNCTIONAL LITERACY PROJECT

IN SELECTED ESTABLISHMENTS IN AMMAN

DEVELOPMENT PROJECTS
MINISTRY OF EDUCATION
AMMAN – JORDAN

AUGUST, 8th – 1970

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DEVELOPMENT PROJECTS

MINISTRY OF EDUCATION

AMMAN - JORDAN

August 8, 1970

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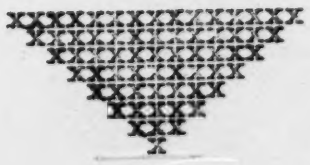

Chapter One

Introduction

International Education Year:

The Government of Jordan decided in January 1970 to launch a project of functional literacy among the industrial workers of the district of Amman. The project is one of several other activities, conferences, and programs which Jordan is undertaking as part of the Unesco International Education Year 1970.

The specific nature, aims and objectives of the project could not be laid down in advance. This is completely dependent upon the results of a field survey. However some general guide lines were put down for the project as a whole. The new trend in literacy and adult education stresses the functionality of any literacy program. Thus the first main guide line is that the activities of the project should be centered around functional literacy. The second guide line is that the efforts should be directed to persons who are engaged in productive activities, namely in our case the industrial workers. Thirdly the curriculum contents of the project program should be oriented towards the nature of the productive activity in which the worker is engaged, aiming thereby, at the improvement of the worker's performance and the rise in productivity. The fourth guide line is that such a program should be the shared responsibility of the Ministry of Education, the industrial establishments, represented by the employers and the employees, especially in the financial commitments of the project.

Present Activities in Literacy and Adult Education:

The Ministry of Education is the agency responsible for only kind of literacy and adult education programs. Prior to 1968 the agency responsible

for adult education was the Ministry of Social Affairs and Labour. Presently the Ministry of Education is undertaking two literacy programs. The first is the program consisting of the regular Centers in which literates learn basic skills of reading, writing and arithmetic in addition to some general education instruction. The second is the special literacy program sponsored by the Arab League Literacy Agency currently organized in the Al-Baqa Refugee Camp.

The regular literacy programs centers represent the major activity of the Ministry of Education in the field of eradicating illiteracy and adult education. Such centers are to be found every where in the country. School premises are used as classrooms, and Ministry of Education teachers are the instructors. The whole program is financed by an annual allocation in the budget of the Ministry of Education. Instruction is organized on an evening basis. Participants attend the centers for five days a week, and in every day of instruction two periods are allotted. Books and all teaching—learning materials are distributed to the participants with no charge. Statistical data show that between 1960 and 1969 about 11,518 illiterate male and female adults attended the regular literacy centers. See table 1.

Table 1

Literacy Centers and Participants

1965/66 - 1969/70

Category		Centers	Participants
1965/66	Male	3	1020
	Female	15	450
1966/67	Male	60	1531
	Female	78	2547
1967/68	Male	73	1473
	Female	82	1930
1968/69	Male	52	1013
	Female	75	1554
1969/70	Male	64	1210
	Female	96	1968

Note: Data for 1967/68 onward are for the East Bank only.

Table 1 shows that the total number of literacy instructional classrooms centers for 1969/70 is 160 % . The total number of participants for both sexes is 3178, out of whom 38% are males and 62% are females. The data demostrate the interest of women in the society of Jordan in getting educated.

There is a special section in the Ministry of Education for supervising literacy and adult education programs. One of the most important functions of the section is in the field of teacher training. Instruction in the field of literacy needs special skills. Accordingly training courses were annually organized for teachers who would instruct adults. See Table 2.

Table 2

Teacher Training Courses and Participants

Year	Male Teachers	Female Teachers	Total
1965/66	74	72	146
1966/67	73	82	155
1967/68	52	75	127
1968/69	64	96	160
1969/70	18	14	32

The second field of activity undertaken by the Ministry of Education is the special literacy program sponsored by the Arab Regional Literacy Organization. The project was approved in March 1969, and the Arab League contributed initially 20,000 dollars for the project. The aim of the project is to eradicate illiteracy in the Al-Baqa Refugee Camp. It is estimated that there are 5,163 illiterate adults in the camp. The same arrangements followed in the Ministry Centers are applied in this project. The project was inaugurated in March 1970. It started with 13 classrooms, eight for males and five for females. At present there are 260 males and 175 females participating in the project. In addition to classroom instruction, the Ministry of Education established two clubs, one for male participants, and the other for females. The two clubs are used for the social activities organized by literacy experts from the Ministry of Education.

Exploratory Research on Reading Inclinations of Illiterates:

Textbooks to be used in the literacy centers were brought from Kuwait. It has been realized long ago that such textbooks might be suitable for use in Kuwait, but not Jordan. The content of these textbooks was heavily loaded with local Kuwaiti usages and phrases. Accordingly it was felt that textbooks

specially prepared for Jordanian adults is a necessary step.

This issue was discussed at the annual meetings of the Arab Regional Literacy Organization in Cairo. Arlo took a decision by which an expert in adult education was to come to Amman for the purpose of preparing three text-books. Dr. Ahmed Mahdi came to Jordan in July 1968 and carried out an explo-ratory field research for determining the reading interests and inclinations of the illiterate adults in Jordan. The findings of such a research are being utilized in the design and content analysis of the textbooks.

A sample of seventy illiterate adults was selected from several parts of the City of Amman and its outskirts. Each subject was interviewed on the basis of a questionnaire. Responses were later analysed by Dr. Mahdi and his associates in the Ministry of Education. As it was expected the interests and inclinations of the illiterate adults were religiously oriented. Religious subjects had the highest priority, such as reading about the life of the Prophet Mohammed, general religious readings, the basic plillars of Islam, stories of the prophets and their desciples, reading the Koran and its interpretations and the traditions. Other topics that had high priority were reading about the June War of 1967, the Israeli aggression on the Arab Countries, child-care, health protection, history of the Arab countries etc. etc.

The Outline of the Paper:

Having discussed the present activities of the Ministry of Education in adult education the plan of the paper is as follows: In Chapter Two a per-spective of the labour force in Jordan is introduced. The Cnesus of 1961 and the Manpower Survey of 1966 give information about the total labour force, agricultural and non-agricultural, and the total labour force in the non-agricultural sector separately as projected from the 1966 data. Then the

total labour force in the non-agricultural sector for the district of Amman is given, 1970.

Chapter Three discusses the methodology and the research instruments used in the field survey conducted in the District of Amman. The main aim of the Survey was to determine the number of illiterate adults and throw light on related issues. Chapter Four gives a detailed analysis of the data supplied by the Survey, and the main findings. Chapter Five contains the main recommendations based on the findings of the Survey, and the project recommended to be carried out in some selected industrial establishments in Amman.

Chapter Two

A Perspective of Labour Force

Census of Population 1961:

The census of 1961 showed a total of 1,706,226 residents in Jordan. For the country as a whole, 41 per cent of the population was in urban, and 59 per cent in rural areas. The two largest cities, Amman and Zarqa, accounted for a little over half of the country's urban population.

The 1961 census showed a total labour force of 389,958 persons. This represents 23 per cent of the total population. Of this 367,912 were men, which represented almost exactly half of all males five years of age and over. Participation rates were very low in the 5 to 14 year age group, rising to 52 per cent in the 15 to 19 year and to 89 per cent in the 20 to 24 year group. The highest participation rate was among men in the 30 to 39 year age range.

In Jordan relatively few women engage in economic activity. The 1961 census showed 22,046 women in the labour force, representing only 3.2 per cent of all women aged five years and above. The highest participation rate of women in the labour force (6.9 per cent) was among those in the 20 to 24 year age range. Rates in no other age group were as high as 5 per cent.

The labour force by industry division is given in table 3 according to the 1961 census.

Table 3

Total Labour Force by Industry Division
And Sex, 1961

Industry Division	Male	Female	Total
Total	367,912	22,946	389,958
0 Agriculture, etc.	130,679	7,078	137,757
1 Mining and Quarrying	9,182	5	9,187
2-3 Manufacturing	29,368	5,127	34,495
4 Construction	40,123	36	40,159
5 Electricity, Gas, etc.	1,561	14	1,575
6 Commerce	30,957	396	31,355
7 Transportation, Communication	11,760	136	11,896
8 Services	45,566	8,175	53,741
9 Activities not described	70,745	1,029	71,774

Agriculture employed about 35 per cent of all male workers, a total of nearly 131,000. About one-third of the women in the labour force were attached to farming, and a slightly higher proportion to service industries.

Classification in terms of occupations according to the 1961 census shows the following findings:

1. The largest number of males was in farm occupation. The combined total of some 70,000 farmers and farm mangers, and 53,000 farm workers represented about 35 per cent of all employed males.
2. The next largest group was craftsmen and production workers, accounting for some 29 per cent of the total.
3. Other occupations were relatively much less important numerically.
4. Only 3 per cent of all men employed were in professional, technical and related occupations, while substantially fewer than 1 per cent of the total (2,275) was engaged in administrative occupations.

One important characteristic of the population in relation to man-power planning and training is the relatively high, and increasing rate of literacy. At the time of the 1961 census indicates that just over 50 per cent of all males aged 15 years and older was literate. The rates for women was lower, being 15 per cent.

The Man-power Survey of 1966:

The man-power survey of 1966 was based on establishments of all sizes in the non-agricultural sector of the economy. It included the following fields of economic activities: mining and quarrying; industrial manufacturing, electricity and gas, commerce, finance, and services. Table 4 shows the labour force by industry division.

Table 4

Total Labour Force in the Non-agricultural Sector, by Industry, 1966

Industry Division	No. Employees	Per cent
Total	71,849	100
Mining and Quarrying	3,126	4.3
Industrial Manufacturing	26,438	36.8
Electricity and Gas	1,108	1.5
Commerce	30,766	42.8
Finance	1,715	2.4
Services	8,696	12.2

There is a discrepancy between the findings of 1961 and those of 1966. The differences might be accounted for by the methodology followed, the first being a household survey, while the second is an establishment survey. The results of the man-power survey are utilized in arriving at estimates for the number of establishments and employees for 1970.

Another important observation is that the 71,849 persons, representing the labour force in the non-agricultural sector in 1966, are engaged in 20,019 establishments. These establishments are of two categories, the first refers to establishments that does not employ workers, and the other that do employ workers. About 46 per cent of the establishments do not employ workers. In Amman district there were 5122 establishments out of which 70 per cent employ workers.

So basing the estimates on employees figures, the total number is 41,510 persons employed in 10,876 establishments. See Table 5.

Table 5

Number of Employees and Establishments
in Non-agricultural Sector, 1966

Industry Division	No. Employees	No. Establishments
Total	41,510	10,876
Mining and Quarrying	2,915	149
Industrial Manufacturing	17,706	5,336
Electricity and Gas	1,108	15
Commerce	12,467	3,920
Finance	1,706	83
Services	5,608	1,373

In order to determine the number of employees in the non-agricultural sector of the economy for 1970 the projections made in the 1966 man-power survey will be adopted. One main reason for this method is to give an overall picture of the labour force in Jordan. It should be mentioned here that the post June 1967 War Surveys of labour force give information about the East Bank only. Table 6 shows the number of employees in 1970 as projected from 1966 data.

Table 6

Number of Employees in the Non-agricultural Sector, 1970

Industry Divisision	1966	1970
Total	41,510	45,423
Mining and Quarrying	2,915	3,279
Industrial Manufacturing	17,706	19,643
Electricity and Gas	1,103	1,248
Commerce	12,467	13,256
Finance	1,706	1,893
Services	5,608	6,104

According to the projections the 45,423 workers in the non-agricultural seetor in 1970 are distributed in the thirteen major towns and cities as in table 7.

Table 7

Distribution of Labour Force According to Districts, 1970

Districts	No. Employees	Percentage
Total	45,423	100
Amman	20,489	45.2
Zarqa	3,490	7.7
Jerusalem	9,225	20.3
Ramallah	2,120	4.8
Nablus	5,119	11.0
Jenin	535	1.2
Irbid	1,881	4.2
Jerash	72	0.1
Hebron—Khalil	1,098	2.4
Karak	144	0.4
Ma'an	135	0.3
Aqaba	293	0.6
Balqa	822	1.8

Table 7 does not take into consideration the consequences of the June 1967 War. It also shows the trend of employment of establishments that were in existance in 1966, and thus does not take into consideration the posibilities of having new establishments.

A detailed analysis of the employment conditions in Amman area is given in Table 8. The distribution is given according to the major economic activity. It should be pointed out that about 40 per cent of the total number of employees are engaged in the industrial manufacturing category, next in rank comes the category of employees in the commercial category.

Table 8

Employees in Amman Area

Non-agricultural, 1970

Industry Division	No. Employees	Per Cent
Total	20,489	100
Mining and Quarrying	673	3.4
Industrial Manufacturing	8,558	41.4
Electricity and Gas	539	2.7
Commerce	7,806	38.2
Finance	1,121	5.5
Services	1,792	8.8

So far in no survey has the educational background of the worker been taken into consideration. The 1961 census gave information as to the status of literacy of the total population. But no account was given as to the condition of literacy of the labour force. Therefore, it was necessary to undertake a field survey of some selected establishments in Amman area with the main purpose of determining the number of illiterate workers.

Chapter Three

The Methodology and Research Instruments

Introduction:

The literacy project in the industrial establishments of Amman had to be defined quantitatively and qualitatively. So far there is no information about the educational background of the working class in Jordan. Moreover there is not reliable information about the number of industrial workers in the area of Amman. As a result of these two main facts, the Ministry of Education decided to carry out a field survey of the industrial workers of the area of Amman.

Methodology of the Research and Instruments:

The design of the survey was based on one important basic fact: that there are about twenty thousand industrial workers in the City of Amman. This figure was arrived at from a projection of 1966 figures of the Man-power Survey conducted in that year. The estimate for 1970 is thus a very rough estimate for several reasons. First the June War of 1967 was not taken into consideration. It is a well known fact that thousands of people were displaced, and many of them settled in the area of Amman. Secondly, since projections were based on opinions of employers in 1966, so it should be expected that the possibility of new establishments coming into existance was not also taken into consideration. Furthermore, the figure, twenty thousand, of the industrial labour force excludes:

(1) Agricultural workers, farm owners and farmers

(2) Workers and employees of public administration government departments.

The figure includes workers in the following non-agricultural categories: (1) Mining and quarrying, (2) industrial manufacturing, (3) electricity and gas, (4) Commerce, (5) Finance, and (6) Services.

A number of industrial establishments was selected. There were no criteria for the selection of the establishments. The field interviewers were told cover all the industrial establishments of the area of Amman. But this was not possible. At the end of the field survey it was discovered that the total number of establishments was one hundred with a total number of workers of 7376 of whom about 266 were female workers.

Table 8 shows that the number of non-agricultural workers in Amman area is 20,489. The establishments covered in the survey did not include commercial, financial, and services establishments. These excluded establishments have a total labour force of 10,719 workers. So we are left with 9,770 workers as the total number of workers employed in:

1. Mining and quarrying establishments.
2. Industrial manufacturing establishments.
3. Electricity and gas establishments.

Since the number of workers of the establishments covered in the survey is 7376, then this represents 79% of the total number of workers of their category. It is most probable that 21% of the total number of workers who were not included in the survey are employed in establishments of a size of less than five workers each.

Two research instruments were used:

1. The first is a questionnaire addressed to the employer. It is an establishment survey. The main aim of this questionnaire is to get enough data about the total number of employees, the nature of industrial activity, the number of illiterate workers, and its location.

2. The second is a questionnaire addressed to the illiterate worker. After determining the number of illiterate workers in each establishment, interviewers interviewed every illiterate worker in each establishment. The aim was to determine many facts about the worker; whether married or not, the size of his family in case married, whether he has dependents in case he or she is a single, whether he or she wishes to join the literacy center, and whether the center should be located in the establishment or near the residential place of the worker.

There were three groups of interviewers. Each group was composed of two interviewers. Transport facilities were provided by the Ministry of Education. It took about two weeks to finish the field survey. The interviewers were provided by the addresses of the establishment from the Ministry of National Economy and the Department of Statistics. The field interviewers were offered all help required from the employers. In fact the survey could have been possible had it not been for the full cooperation of the employers.

Chapter Four

Research Findings

Related literature:

The research that threw some light on the educational background of industrial workers in Amman area was carried out in 1967. The research covered 1437 workers of ten industrial establishments. The findings revealed that 26 % of the industrial labour force of the ten establishments were illiterate, 46.4% with some elementary education, 18.8% with preparatory education, 7.2 % with secondary general education , and 1 % with a post-secondary education. None was of the workers was a graduate of technical vocational institutions.

See Table 3-1.

Table 9

Educational Balkground of Workers

Category	illiterates	Elementary	Preparatory	Secondary	Higher	Total
Total	374	667	273	104	19	1437
%	26	46.4	18.8	7.2	1	
Tanker Const.	20	15	3	2	-	45
Foundry	15	30	10	3	-	58
Phosphate Mine	10	100	55	13	5	183
Tannery	13	52	15	15	4	95
Printing Press	-	20	25	5	-	50
Cigarette Fact	250	230	15	5	-	500
Pharmacentical	-	15	20	20	9	65
Wes Batteries	50	75	25	25	-	250
Dry Batteries	3	5	30	19	1	103
Indust. Complex	12	55	24	7	2	100

Classification of the Survey Establishments

The number of establishments covered in the survey is 97. The number of workers in each ranged from 5 to 668 (of the cement factory.) The following three tables give the number of workers in each establishment classified into three catagories- with 100 or more workers, with 25-100 workers, and with less than 25 workers.

Table 10

Establishments with 100 workers or more

	Category	Total No, Workers	illitorates	%
1	Wet Batteries	366	56	15
2	Phosphate Mining	648	230	35
3	Cement Factory	668	165	24
4	Cigarette Factory	425	41	9
5	Electricity and gas	700	46	7
6	Metallic Furniture	186	10	5
7	Tannery	124	19	15
8	Refinery	531	56	10
9	Industrial Complex	171	36	21
10	Iron and Steel	96	32	33
11	Paper Products	160	26	13
12	Cigarette Factory - 2	153	18	8
13	Clothing	150	4	9
14	Woolen Textile	144	7	4
15	Bus Services	400	3	.7
16	Cigarettes Backets	113	51	45
17	Clothing	190	42	22
18	Blankets etc.	150	24	16
19	Agricultural Products	171	5	2
	Total	5546	871	
	Per. Cent			15.7%

So table 10 shows only 15.7% of the total number of workers- 5546- are illiterate. An illiterate being the person who can not read or write as judged by the person- worker - himself and his emplpyer. Another result drawn from the table is that 46.3 of the total number of illiterate workers are employed in two main establishments, the phosphate mining company and the Cement factory. Although the rate of illiteracy for the total number of workers is 15.7 3, there are several establishments in which the rate of illiteracy is less than 10 %. The refinery, which is one of the most modern industrial establishments in Jordan, has a ten per cent illiteracy. It should be mentioned here that the refinery does not employ as of 1969 an illiterate person. Further analysis of this table will give indications as to the proper policy to be followed by the Ministry of Education.

Table 11 gives information about establishments with a size of 25-100 employees for each. There are thirty three industrial establishments in this category with a total number of workers of 1219. The rate of illiteracy in these establishments is about 27% . No explanation could be given for the fact that illiteracy in this category is higher than that of the establishments in table 10.

Table 11

Establishments with 25-100 workers

	Category	Total No. workers	illiterates	%
1	Flour Mill	48	15	31
2	Bags factory	51	13	25
3	Ice Blocks	68	13	19
4	Fodder factory	25	13	52
4.	Foundry	25	13	52
6	Tomato sauce	65	9	14
7	Bakery	25	7	28
8	Flour Mill-2	25	18	72
9	Clothing factory	60	8	13
10	Metallic Furniture	42	41	97
11	Tiles Factory	49	16	33
12	Dry Batteries	49	15	31
13	Shoe Factory	25	5	20
14	Plastic Factory	25	1	4
15	Alchoholic Drinks	25	2	8
16	Tricot factory	38	2	5
17	Flour Mill -3	35	11	31
18	Plastic factory	26	5	19
19	Choclates factory	26	2	7
20	Alchoholic Drinks	28	1	3
21	Beer factory	25	1	4
22	Clothing factory-2	25	11	44
23	Soft Drinks	35	7	20

Table 11 Continued

25 Tiles Factory - 2	42	11	26
26 Shoe Factory - 2	55	9	16
27 Choclates Factory-2	26	1	3
28 Cigarattes Factory	60	46	76
29 Clothing Factory - 3	25	4	16
30 Tricot Factory	38	5	13
31 Tomato Sauce	65	4	6
32 Under-wear	27	10	37
33 Clothing factory -4	40	8	20
Total	1219	330	
Per cent		27	

Table 11 also shows that while there are establishments where the rate of illiteracy is less than 10% , there are several establishments where the rate of illiteracy is more than 50 %. However, the mere fact that most of the establishments in this category have a number of workers of about 25 workers each, and thus less than 25 illiterate persons has very important policy implications which will be discussed in another section of this paper.

Table 12 is for the category of industrial establisments with a size of 5-24 workers each. The total number of the establishments is 45, and with a total number of workers of 612. The table also demonstrates that 24% of the workers are illiterate.

Table 12

Establishments with 5-24 workers

Category	No. of workers	Illiterates	%
1. Cigarette Paper	10	3	33
2. Choclates	22	3	13
3. Bicuits	6	3	50
4. Tobacco	5	2	40
5. Paints	8	1	12
6. Blacksmith	5	1	20
7. Soap	16	3	19
8. Tricot	6	1	16
9. Furniture	10	1	10
10. Clothing	5	2	40
11. Clothing-2	7	1	14
12. Cigarette Packets	13	1	7
13. Tricot	15	4	26
14. Oxygen	7	2	28
15. Flour Mill	20	12	60
16. Pottery	19	4	21
17. Tea Packing	10	6	60
18. Refeshments	17	3	18
19. Tiles	16	3	19
20. Bags	8	2	25
21. Metallic Furniture	15	2	13
22. Sweets	21	4	19
23. Stockings	23	7	30

Table 12 continued

Category	No. of workers	Illiterates	%
24 Alchoholic Drinks	16	2	12
25 Beer	20	1	5
26 Bakery	15	4	26
27 Bambo	14	6	42
28 Soft Drink	17	3	17
29 Bus Body	13	3	23
30 Flour Mill	24	3	13
31 Food Processing	12	2	16
32 Gas	22	5	23
33 Shirts	19	5	26
34 Sweets-2	5	2	40
35 Tricot	10	1	10
36 Cigarettes	11	5	46
37 Stockings-2	13	5	38
38 Stockings-3	23	5	22
39 Clothing	20	1	5
40 Stockings-4	15	8	53
41 Tricot	7	1	14
42 Perfumes	5	5	100
43 Tricot	13	4	30
44 Chiclates	22	4	18
45 Cigarettes Paper	12	7	51
Total	612	151	
Per cent		24	

Table 13 summarizes the data furnished by the previous three tables. The table shows that out of 7377 workers there are 1352 illiterates, or 18.3 of the total. This general finding of the survey should be compared with the information about illiteracy supplied by the 1961 census. The census states that of all males and females aged fifteen years and older 60 per cent was illiterate. How this difference-60 % to 18.3 %- could be explained ?

No doubt that the progressive policy followed by the Ministry of Education has changed the situation drastically.Education was made compulsory in the first nine years of schooling in 1964. Even before that year more than one fifth of the total population was attending schools. As a result the rate of literacy had been rising steadily in the sixties, and even before that. On the other hand, it could not be generalized that the rate of literacy in Jordan is 18 % . But it could be contended that the industrial labour force is becoming more and more literate. Industry is attracting literate persons. Thus it could be hypothesized that the rate of illiteracy in the industrial labour force is about 18 %. Further more, the rate of illiteracy in the other sectors of the economy, especially the agricultural, is much more higher than 18 %. But at the present stage no conclusive statement could be given about the non-industrial labour force and its rate illiteracy. Another point that could explain the low rate of illiteracy in the industrial labour force is the fact that about 15 % of the workers are females. Literacy is comparatively low among females in most developing countries.

Table 13

Summary of Worker in the Establishments of the Survey

size of Establishments	Workers	illiterates	%
5 - 24	612	151	16
25 - 99	1219	330	27
100 - and more	5546	871	24
Total	7377	1352	18.3

Illiterate worker by age group and sex

As it is the case of all developing countries, Jordan is young in terms of its people. This fact was found to be reflected in the age distribution of the workers of the survey. Table 14 shows that 70 % of the illiterate workers are within the age group 10-39. The rest are 45 years old and more. It could be contended that most of these illiterate workers either came from rural areas, and thus did not attend schools at all, or are of urban origins and thus might have attended schools for some years but dropped out and then regressed to illiteracy. On the other hand, the mere fact that 70 % of the illiterate workers are considered young is in itself a good justification for any type of investment in literacy programs.

Table 14

Illiterate Workers by Age Group and sex

Age Groups	Males	Females	Total
10 - 14	35	88	123
15 - 19	47	102	149
20 - 24	49	22	71
25 - 29	163	11	174
30 - 34	186	8	194
35 - 39	205	10	215
40 - 44	194	5	199
45 - above	218	10	228
Total	1096	256	1352

The illiterate females are younger than the illiterate males. About 94 % of illiterate females are within the age group of 10-39. Female workers, it seems, withdrow from the labour market at an earlier age than male workers.

Marital Status of the illiterate Workers:

It could be generalized that the majority of the illiterate male workers are married, while the majority of the illiterate female workers are single. Eighty seven per cent of the male workers are married, while 95 % of the female workers are single. It seems, there is a trend that whenever a female industrial worker gets married she withdrows from the labour market. However, being single, a female workers can devote time for any program of literacy. The argument for the male workers is that being married and with family

responsibilities is an incentive for the illiterate male worker to participate in literacy programs. How this is true is revealed by the data on the number of workers who are willing to participate in literacy programs ?

Table 15

Marital Status of the Illiterate Workers

	Married		Single		Total	
	No.	%	No.	%	No.	%
Male	953	87	143	13	1096	100
Female	12	5	244	95	256	100
Total	965		387		1352	

The Illiterate Workers and Their Dependents:

Table 16 supplies many important facts. The first is that a female illiterate worker who is single is in most cases either the full bread winner for a family, or partly participates in supporting a number of persons. The single female worker shares with the head of the family the responsibility of the family by contributing to the common family income fund. The same argament might be applied to the single male worker. The second observation to be made is the number of dependents which a worker is responsible of . The number of dependents ranges from 1 to 15 or more. 62 % of the total number of workers has from 5-10 dependents each.

Table 16

Dependents of the Illiterate workers

Dependents	Male Workers	Female workers	Total
None	55	7	62
1 - 2	112	25	137
3 - 4	195	34	229
5- 6	279	52	331
7 - 8	250	48	298
9 - 10	131	57	188
11-12	46	29	75
13-14	21	4	25
15 -	7	-	7
Total	1096	256	1352

Willingness to participate in Literacy Programs :

Illiterate workers were asked about their willingness to participate in literacy programs. Table 17 shows that 83 % of the total number of illiterate workers are willing to participate in literacy programs. In absolute number, it is only 1122 workers that are willing out of 1352 workers.

Table 17

Willines of workers to participate in literacy programs

Size of Establishment	No. illiterates	willing illiterates	per. cent
5 - 24	151	140	93
25- 99	330	279	84
100- above	871	703	81
Total	1352	1122	83

It was notiwed in the analysis of the data that the willingness of the individual worker to participate in literacy programes depends upon the size of his establishment and the number of illiterates in that establishment; that is an illiterate is more willing to participate if the number of illiterates in his establishment is small, and a worker is less willing to participate if the number of illiterates in his establishment is large.

The Shift system of work:

An item was included in the questionnaire about the work shift of the worker. The workers were classified into four categories: morning, evening, night, and irregular shifts. No basic conclusive results could be arrived at from this item except that all female workers are morning workers. On the other hand about 70 % of the workers are regularly working in the morning, while 28 % of the workers are irregular in their shifts. However, it could be said that there are

four major establishments in which shift system is followed. They are the cement factory, the phosphate mines, the refinery, and the wet butterries factory. The fact that a number of workers are either in evening or might work shifts creates difficulties for organizing literacy programs.

Table 18

work shifts of the workers

Category	Morning	Evening	Night	Irregular	Total
No. Workers	914	53	6	379	1352
Per cent	69	3	.5	27.5	100

General Discussion of the Findings:

The main findings of this survey determine to a large extent the degree and scope of the problem and the nature of solutions to be followed. The fact that only eighteen per cent of the workers are illiterate was surprising. The rate of illiteracy was expected to be much more higher. The second main finding is that illiterate workers, the eighteen per cent of the total, are scattered and dispersed. In most establishments the number of illiterate workers in each ranges from one to not more than ten. In very few of these establishments the number of illiterate workers exceeds twenty five.

Two main recommendations, based on the above mentioned findings, are presented.

First: The dispersed and scattered illiterate workers should be encouraged to join the already existing literacy centers run by

the Ministry of Education. This will cover all the illiterate workers of the establishments with 5 to 25 workers each . It will cover most of the illiterate workers of the establishments with 25 to 100 workers each, and also of the establishments with 100 or more each. Since each existing literacy center, run presently by the Ministry of Education provides education for persons of various eccupational backgrounds, it is recommended that the curriculum should stress basic skills of reading, writing, and arithmetic. This should be accompanied with an enriched curriculum of general education.

Second: A pilot project of functional literacy is recommended for certain establishments in which the number of illiterates is of a size sufficient to establish a center in the establishment itself. For the implementation of this project the following plan of operation is presented.

Chapter Five

The Project

Description

Functional literacy is a new idea both in concept and in action. As a new educational method in the teaching of adults it is still in its experimental stage. For functional literacy to pass the test of experimentation is a healthy sign and will lead in the final analysis to a fruitful maturity.

For Jordan to adopt functional literacy as a general policy in the field of adult education, the new idea has to be started on a pilot basis. By functional literacy, in the context of this project, is meant the following:

1- The aim is to instruct adults who are illiterates. By an illiterate is tentatively meant the worker who does no have the basic skill of writing and reading, and who is judged to be so by himself and by his employer. The exact definition, and thus the number of illiterates to be participating in the project, is subject to the preliminary survey of the selected establishment .

2- The curriculum to be devised and constructed will stress and emphasize the basic communication skills, the basic vocational skills, and a minimum requirement of social education.

3- The contents of the curriculum for each group will be geared to the special needs of individual worker and the establishment in which the worker is employed.

The establishments of the project:

The pilot project will be started in four selected industrial establishments in the city of Amman and its outskirts. Three of them employ male workers, and the fourth employs female workers. The total number of male illiterates is 437 and female illiterates ic 42 in the four establishments. The total labour force in the selected establishments is 1872. Thus the rate of illiteracy in the four establishments is 26 %. See table 19.

Table 19

Number of illiterate workers in the four establishments

Category	No. Of workers	No. of illiterates	%
Clothing factory (Female)	190	42	22.1
Wet batteries	366	65	17.7
Phosphate mines	648	230	35.5
Cement factory	668	142	21.2
Total	1872	479	26

Source : Field Survey

However, and on the basis of the field survey interviews, not all the illiterate workers are willing to participate in any kind of literacy programs . They have their reasons for not participating. Their attitude can not be described as negative. Unwillingness might be considered as subject to change in the future. It was found that 389 illiterates are willing to participate in literacy

programs out of a total of 437, or 89 %. On the other hand, it was dicided that not all the willing illiterates could be accommodated in the proposed literacy centers of the project. Only 210 illiterates will be accepted distributed as in Table 2.

Table 20

Number of Participants and Centers

Category	No. illiterates	willing illiterates	participants	No Centers
Clothing factory female	42	41	30	1
Wet batteries	65	65	60	2
Phosphate mines	230	145	60	2
Cement factory	142	138	60	2
Total	479	389	210	7

According to Table 20 it is proposed that each male center will be consisting of two classroom sections with a total enrolment of 60 workers for each, while the only female center will be consisting of one classroom section with an enrolment of 30 females.

Stages of Implementation :

Several meetings were held in the Ministry of Education in which Dr. Abdel-Jaber Wali of ASFEC participated. The project was discussed and Dr. Wali offered his expert advice. The Ministry of Education officials made their position clear and stressed the fact that Jordan's academic and practical experiences in the field of functional literacy do not qualify her to be completely self-dependent in the professional aspects of the project in question.

It was agreed that help is needed from outside of Jordan, especially in the planning and first initial take-off stages of the project . It was agreed also that the project will be implemented in stages following the next plan.

First stage : An expert from ASFEC is needed to carry out, in cooperation with the Adult Education Section personnel in the Ministry of Education, a preliminary research survey in the four selected establishments . The aim of this research survey is to study the nature of the labour force in the establishments, and come out with some findings that will help in the design and construction of the curriculum contents relevant to each of the four selected establishments. Moreover, the findings of the survey will help in the design and construction of all needed teaching materials and aids. It is proposed that the ASFEC expert will stay for a perioed of one month for the implementation of the field aspect of the survey.

Second stage: It is proposed that the ASFEC expert will take with him, when leaving Jordan, all the field research data collected in Jordan for analysis and interpretation in ASFEC . It was agreed that on the basis of the findings of the survey ASFEC will start to design, construct , and put in its final form the curriculum required for each establishment and the needed teaching aids. The details for this stage are subject to further consideration. The Ministry of Education would like to point out that the curriculum is the aspect of the whole project in which outside expert help is needed. The time required for the fulfilment of the objectives of this stage is completely dependent upon ASFEC.

Third Stage : The Ministry of Education undertakes to put the project in its instructional stage. However, it is requested that an expert from ASFEC will be supervising the project for the first initial take-off stage.

It is understood that the participants from the illiterates in the project will continue to be attending the program for twenty four months.

Organisation:

The Ministry of Education is the agency in full responsibility of the project. The Division of Vocational Education in the Ministry will be responsible for the project through the Adult Education Section. Presently the Division of Vocational Education is composed of the following sections :

1. Industrial Education Section.
2. Agricultural Education Section.
3. Commercial Education Section.
4. Women Vocational Education Section.
5. Private Adult Education Centers Section.
6. Adult Education and Literacy Section.

The personnel within the Adult Education and Literacy Section are :

- Head of the Section
- Two field supervisors
- One clerk

Staff:

The centers of the project, consisting of seven classroom

sections, will need seven instructors. These will be provided by the Ministry of Education, and they will be from those who have had their training in functional literacy in ASFEC or other .

Help might be sought in the field of instruction from the technical personnel of the establishment in question. Their help might be needed in the vocational instructional aspects of the project. Nevertheless, this aspect will be left to be determined later on the light of the findings of the preliminary survey.

The Role of the employers:

The project covers the establishments whose employers expessed their willingness to cooperate. The employers were visited by the Head of the Adult Education and Literacy Section and his two colleagues, and were informed about the aims and objectives of functional literacy and the project. The employers agreed in principle to offer, as part of their contribution to the project, the following:

1- Premises for instructional purposes.

2- Use of the equipment and materials of the establishment for demonstration purposes.

3- Any instructional help that could be offered by the technical personnel of the establishment.

Nevertheless, as a result of the interview with the employers of the four establishments, it was understood that the time needed for classroom instruction should not be taken from the working time of the establishment. All the employers expressed their feeling that the production process will be greatly hampered if

some of the workers are withdrawn from the production line. Classroom instruction, therefore, must be conducted after the working time. The manager of the cement factory, which is located in the outskirts of Amman, expressed his willingness to provide transport facilities for the participating illiterate workers to their homes.

One main positive factor that resulted from the employers interview is that they will guarantee the regular attendance of workers in the functional literacy courses . It is not yet known what incentives will the employers offer to the workers .

Financial Aspects of the project :

The basic assumption is that the project in each of the four establishments will continue to function for twenty four months (two years). This is a tentative estimated time that a program of functional literacy requires so that its objectives might be fulfilled. Consequently, the cost breakdown of the project is made on the basis of twenty four months. All types of cost items in the project are estimated accordingly with no difference made between capital costs and running costs (furniture and some initial curriculum research cost items might be the only capital costs in the project).

Table 21 shows the cost breakdown of the project and the value for each item. In astimating costs current prices and practices are taken into consideration. Few of the cost estimates are rough estimates. Experiences and practices in running literacy centers by the Ministry of Education were taken into consideration.

Table 21

Cost Breakdown of the

Project

	J. D
1- Seven classrooms rent , 24 months, 150 dinars per annum perunit	2,100
2- seven assistant instnuctors, 5 dinars per month per unit	,840
3- Use of establishment equipment and material, 2.5 per annum per participant	1,050
4- Desks, balckboards, chairs, and tables. 10 dinars per desk including other items	1,050
5- Seven Ministry of Education instructors 10 dinars per month per unit	1,680
6- Books and writing materials : 3 dinars per participant per annum .	1,260
7- ASFEC experts - two man months. cost of one mem month being 390 dinars .	,780
8- Curriculum design and construction . requiring two man months work	,780
9- Administration and other expansex not covered above	1,500
T o t a l	11,040

Sources of Finance :

There are four sources for financing the project :

1- The contribution of the four establishments.

2- The contribution of the Amman Literacy compaign Fund.

3- The Contribution of ASFEC.

4- The contribution of the Ministry of Education .

1- The four establishments :

The employers of the four establishments promised to make their contributions in kind. They will provide (a) the instructional premises, (b) the use of establishment equipment and materials for demonstration purposes, and (c) provide instructional help from their technical personnel. These refer to cost items (1) , (2) and (3) in Table 31 The total value of the contribution of the establishments is 3990 dinars.

(2) The contribution of the Amman Literacy Campaign Fund:

This fund was originally established to finance all kinds of literacy programs in the industrial establishments of Amman. The Fund is controlled and supervised by the Minister of National Economy, and the contributors are the employers of the major establishments in Amman . From this fund items (4) , (5) , and (6) in Table 3 will be financed. The value of this contribution is 3990 dinars.

(3) The contribution of ASFEC :

ASFEC will contribute the financing of items (7) and (8). The value of the contribution is 1560 dinars. This includes

two man-months expert services in the field, for the survey and the initial tak-off month, and the time required for the preparation of the curriculum and teaching materials (equivalent to the value of two man-months).

(4) The contribution of the Ministry of Education :

All other miscilaneous items that are not covered in items 1-8 will be borne by the Ministry of Education. This includes central administrative services and facilities, transport of instructors, and supervision of the project. etc. the value of this item is estimated at 1500 dinars.

Summary of Sources of Finance:

Table 22

Contributing Agencies

Category	Value: Dinars
1- The four Establishments	3,990
2- Amman Literacy Campaign Fund	3.990
3- ASFEC contribution	1,560
4- Ministry of Education contribution	1,500
Total in Dinars	11,040
Total in U.S. Dollars	40,848

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